Myths vs Truths: Urinary Tract Infections in Adults

What is the significance of “abnormal” urine?

- **MYTH:** Cloudy, smelly or dark urine are indicative of a UTI.
  **TRUTH:** These characteristics do NOT correlate with the presence of a UTI and should NOT be used as a criteria to obtain a urine culture.

- **MYTH:** Bacterial growth in a urine culture is diagnostic of a UTI and should always be treated.
  **TRUTH:** Up to 25% of diabetic women and 50% of nursing home residents have bacteria colonizing their urine at baseline; in the absence of urinary symptoms most do not require treatment. Treating asymptomatic bacteriuria only increases risk of medication side effects and antibiotic resistance! It does NOT decrease the likelihood of having future UTIs or urinary bacterial colonization.

- **MYTH:** Altered mental status (AMS), delirium, and falls in nursing home residents are often due to UTIs and patients should receive antibiotic treatment in bacteria is seen on a urine culture.
  **TRUTH:** The evidence that falls or delirium in nursing home residents are due to UTIs is virtually nonexistent! Treating asymptomatic bacteriuria has no effect on incidence of delirium or falls in nursing home residents.

What are the effects of a catheter on the urinary tree?

- 15-20% of hospitalized patients have a urinary catheter placed during hospitalization.

- Bacteriuria incidence in catheterized patient is 3-8% per day.
  → After 7 days, nearly **50%** of patients will have bacteria in their urine.
  → After 1 month of catheter use, nearly **ALL** patients will have bacteria in their urine.

- Bacteremia is a **rare** complication of catheter associated bacteriuria in **<1%** of cases and **<1%** of hospital deaths are due to bacteremic UTIs.

When is it appropriate to treat asymptomatic bacteriuria?
The only times you should treat asymptomatic patients with bacteria in their urine:
- 1) Pregnant
- 2) Having urologic surgery
- 3) Having prostate surgery

References: IDSA CAUTI (2009) and Asymptomatic Bacteriuria (2005) guidelines